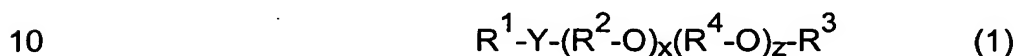


WHAT IS CLAIMED IS:

1. An aqueous plant protection formulation comprising
 i) at least one polymer which can be prepared by radical
 5 copolymerization of
 A) acrylamidopropylmethylenesulfonic acid (AMPS) and/or its salts;
 B) one or more macromonomers according to formula (1)



in which

- R^1 is a vinyl, allyl, acryloyl, methacryloyl, senecioyl or crotonyl residue;
 15 R^2 and R^4 are, independently of one another, (C₂-C₄)-alkylene;
 x and z are, independently of one another, an integer between 0 and 500, with $x+z$ greater than or equal to 1;
 Y is O, S, PH or NH, preferably O; and
 R^3 is hydrogen or a saturated or unsaturated, linear or
 20 branched, aliphatic, cycloaliphatic or aromatic (C₁-C₁₀₀)-hydrocarbon residue, preferably (C₁-C₃₀)-hydrocarbon residue, and
 C) optionally one or more other at least mono- or polyolefinically unsaturated oxygen-, nitrogen-, sulfur-, phosphorus-,
 25 chlorine- and/or fluorine-comprising comonomers,
 ii) at least one pesticide and
 iii) at least one inorganic fertilizer.

2. A plant protection formulation as claimed in claim 1, wherein the
 30 comonomer A) is the sodium salt and/or ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS).

3. A plant protection formulation as claimed in claim 1 or 2, wherein
 R^1 is an acryloyl or methacryloyl residue;
 35 R^2 and R^4 are, independently of one another, C₂-alkylene or C₃-alkylene;

x and z are, independently of one another, an integer between 0 and 50, with x+z greater than or equal to 1;

R^3 is an aliphatic (C₄-C₂₂)-alkyl or -alkenyl residue, preferably (C₁₀-C₂₂)-alkyl or -alkenyl residue;

5 a phenyl residue;

a (C₁-C₂₂)-alkylphenyl residue, preferably sec-butyl- or n-butylphenyl residue;

a poly((C₁-C₂₂)-alkyl)phenyl residue, preferably tris(sec-butyl)phenyl residue or tris(n-butyl)phenyl residue; or

10 a polystyrylphenyl residue, preferably tristyrylphenyl residue.

4. A plant protection formulation as claimed in claim 3, wherein the R^3 residue is a 2,4,6-tris(sec-butyl)phenyl residue or 2,4,6-tris(1-phenylethyl)-phenyl residue.

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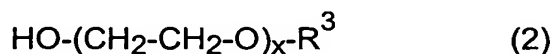
5. A plant protection formulation as claimed in claim 1, wherein the polymers can be prepared by radical copolymerization of

A) acrylamidopropylmethylenesulfonic acid (AMPS), the sodium salt of acrylamidopropylmethylenesulfonic acid (AMPS) and/or the ammonium salt of acrylamidopropylmethylenesulfonic acid, preferably the ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS);

20

B) one or more macromonomers chosen from the group of the esters formed from methacrylic acid or acrylic acid, preferably methacrylic acid, and compounds of the formula (2)

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in which x is a number between 1 and 50, particularly preferably 5 and 30, and R^3 is a (C₁₀-C₂₂)-alkyl residue; and

C) optionally one or more comonomers chosen from the group consisting of acrylamide, vinylformamide, N-vinylmethyleacetamide, sodium methallylsulfonate, hydroxyethyl methacrylate, acrylic acid, methacrylic acid, maleic anhydride, methacrylamide, vinyl acetate, N-vinylpyrrolidone, vinylphosphonic acid, styrene, styrenesulfonic acid (Na salt), t-butyl acrylate and methyl methacrylate.

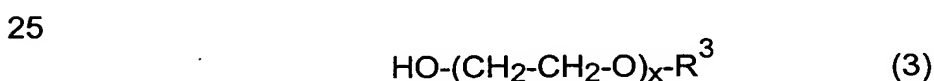
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6. A plant protection formulation as claimed in at least one of claims 1 to 5, wherein the macromonomers B) are esters formed from acrylic acid or methacrylic acid and alkyl ethoxylates chosen from the group of the (C₁₀-C₁₈)-fatty alcohol polyglycol ethers with 8 EO units, C₁₁-oxo alcohol polyglycol ethers with 8 EO units, (C₁₂-C₁₄)-fatty alcohol polyglycol ethers with 7 EO units, (C₁₂-C₁₄)-fatty alcohol polyglycol ethers with 11 EO units, (C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 8 EO units, (C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 15 EO units, (C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 11 EO units, (C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 20 EO units, (C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 25 EO units, (C₁₈-C₂₂)-fatty alcohol polyglycol ethers with 25 EO units, iso(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 25 EO units and/or C₂₂-fatty alcohol polyglycol ethers with 25 EO units.

7. A plant protection formulation as claimed in claim 1, wherein the polymers can be prepared by radical copolymerization of

A) acrylamidopropylmethylenesulfonic acid (AMPS), the sodium salt of acrylamidopropylmethylenesulfonic acid (AMPS) and/or the ammonium salt of acrylamidopropylmethylenesulfonic acid, preferably the ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS);

B) one or more macromonomers chosen from the group of the esters formed from methacrylic acid or acrylic acid, preferably methacrylic acid, and compounds of the formula (3)



in which

x is a number between 1 and 50, particularly preferably 5 and 30, and

R³ is a poly((C₁-C₂₂)-alkyl)phenyl residue, preferably tris(sec-butyl)phenyl residue or tris(n-butyl)phenyl residue, particularly preferably 2,4,6-tris(sec-butyl)phenyl residue, or a tris(styryl)phenyl residue, preferably 2,4,6-tris(1-phenylethyl)phenyl residue; and

C) optionally one or more comonomers chosen from the group consisting of acrylamide, vinylformamide, N-vinylmethyleacetamide, sodium methallylsulfonate, hydroxyethyl methacrylate, acrylic acid,

methacrylic acid, maleic anhydride, methacrylamide, vinyl acetate, N-vinylpyrrolidone, vinylphosphonic acid, styrene, styrenesulfonic acid (Na salt), t-butyl acrylate and methyl methacrylate.

- 5 8. A plant protection formulation as claimed in at least one of claims 1 to 7, wherein the proportion of macromonomers B) in the polymers is 50.1 to 99.9% by weight, preferably 70 to 95% by weight, particularly preferably 80 to 94% by weight.
- 10 9. A plant protection formulation as claimed in at least one of claims 1 to 7, wherein the proportion of macromonomers B) in the polymers is 0.1 to 50% by weight, preferably 5 to 25% by weight, particularly preferably 6 to 20% by weight.
- 15 10. A plant protection formulation as claimed in at least one of claims 1 to 9, wherein the number-average molecular weight of the polymers is 1000 to 20 000 000 g/mol, preferably 20 000 to 5 000 000 g/mol, particularly preferably 50 000 to 1 500 000 g/mol.
- 20 11. A plant protection formulation as claimed in at least one of claims 1 to 10, wherein the polymers are crosslinked.
- 25 12. A plant protection formulation as claimed in at least one of claims 1 to 11, the copolymerization being a precipitation polymerization, preferably in tert-butanol.
- 30 13. A plant protection formulation as claimed in at least one of claims 1 to 12, which comprises, based on the ready-mix formulation, 0.01 to 10% by weight, preferably 0.01 to 5% by weight, of polymers.
- 35 14. A plant protection formulation as claimed in at least one of claims 1 to 13, wherein the water content, based on the ready-mix formulation, is 5 to 60% by weight, preferably 5 to 50% by weight, particularly preferably 5 to 30% by weight.
15. A plant protection formulation as claimed in at least one of claims 1 to 14, wherein the solubility in water of the pesticides is greater than 800 g/l, preferably greater than 1000 g/l.

16. A plant protection formulation as claimed in at least one of claims 1 to 15, wherein the pesticides are ionogenic pesticides.

5 17. A plant protection formulation as claimed in at least one of claims 1 to 16, wherein the pesticides are glyphosate, sulphosate and/or glufosinate.

10 18. A plant protection formulation as claimed in at least one of claims 1 to 17, wherein the proportion of pesticides, based on the ready-mix formulation, is 5 to 85% by weight, preferably 25 to 60% by weight.

15 19. A plant protection formulation as claimed in at least one of claims 1 to 18, wherein the inorganic fertilizers are ammonium salts and/or phosphates.

20 20. A plant protection formulation as claimed in at least one of claims 1 to 19, wherein the proportion of inorganic fertilizers, based on the ready-mix formulation, is 5 to 85% by weight, preferably 25 to 60% by weight.

25 21. A plant protection formulation as claimed in at least one of claims 1 to 20, which is free from organic solvents.

22. A plant protection formulation as claimed in at least one of claims 1 to 21, which is a soluble liquid (SL) or a soluble concentrate.

23. A plant protection formulation as claimed in claim 1, wherein $5 \leq x + z \leq 50$.